



Missouri Department of Natural Resources
Mississippi River - WBID 0001
Fish Egg Data, 1998-2004

Org	Site Name	Year	Species	# in Sample	Prep	Length, in.	Weight, lbs.	PCB, mg/kg
IEPA	Mississippi R. @ Golden Eagle, IL	1998	sturgeon	3	Eggs	31.1	5.2	0.52
MDC	Mississippi R. @ Saverton	2004	shovelnose sturgeon	1	Eggs	24.1	2.1	0.343
MDC	Mississippi R. @ Saverton	2004	shovelnose sturgeon	1	Eggs	29.1	3.9	0.398
MDC	Mississippi R. @ Saverton	2004	shovelnose sturgeon	1	Eggs	26.3	3.1	1.02
Average:								0.570

Historically, most states adhered to the Food and Drug Administration guidance to prohibit fish consumption if PCB levels in fillets exceeded 2 mg/kg. More recently, the U.S. Environmental Protection Agency and Food and Drug Administration have recommended that states no longer use this value. In response to this recommendation, the Missouri Department of Health and Senior Services (MDHSS) conducted a human health risk assessment for consumption of fish contaminated with PCBs to use for its annual fish consumption advisory. Its recommendations are shown in the table below. Information on the number of fish meals consumed by sport fishermen is shown in the middle column of the table. This information is from "Sport-Caught Fish Consumption in Missouri--2002 Mail Survey" by McKee, et al., Missouri Department of Conservation.

Number of Fish Meals	Percent of Missouri Anglers Eating at Least This Number of Fish Meals	PCBs in Fish Fillets (mg/kg)
Unlimited	5% (3 or more per week)	<0.04
2 per week	25%	0.04-0.10
1 per week	50%	0.10-0.37
1 per month		0.37-0.75
Do not eat		>0.75

The mean level of PCBs in fish eggs in this segment of the Mississippi River is 0.570 mg/kg. Based on the Missouri Department of Health and Senior Services advisory levels, this mean represents a level of PCBs that allows one fish meal per month. This represents a reduction in the preferred number of fish meals for more than 50 percent of anglers consuming sport-caught fish. This reduction is considered to be of concern, but not serious enough to constitute a loss of the fish consumption beneficial use. In addition, these guidelines were developed based on consumption rates of fish fillets, and there is no known comparable data on the consumption of fish eggs. It is recommended that this segment of the Mississippi River not be considered impaired due to PCBs in fish eggs, but that it be given high priority for additional monitoring.

The Missouri Department of Health and Senior Services has issued a "Do Not Eat" advisory for all consumers on sturgeon eggs collected from the Mississippi River due to PCBs and chlordane.